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a mid-year
economic
forecast

executive report 1971

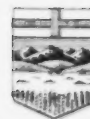
ALBERTA

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BRANCH



"Executive Report - 1971"
...a mid-year economic forecast



A Publication of the
Economic Research Branch

September, 1971

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Minister
Department of Industry & Commerce

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FOREWARD

This report is second in a series of publications by the Economic Research Branch. The aim of this series is to assist the Alberta business community in their planning for the future. The discussion and development of the "Activity Index" is intended to meet this goal. At this stage of development, it is recognized that refinements to the index are necessary and comments and suggestions for its improvement are solicited.

The material and statistics used in this analysis comes from a variety of sources. Included are: Statistics Canada, Alberta Bureau of Statistics, Alberta Energy Resources Conservation Board, and Alberta Department of Agriculture. Constructive criticism was offered by Mr. D.I. Istvanffy, Director, Alberta Bureau of Statistics and Mr. H. Bryce of the Alberta Department of Agriculture.

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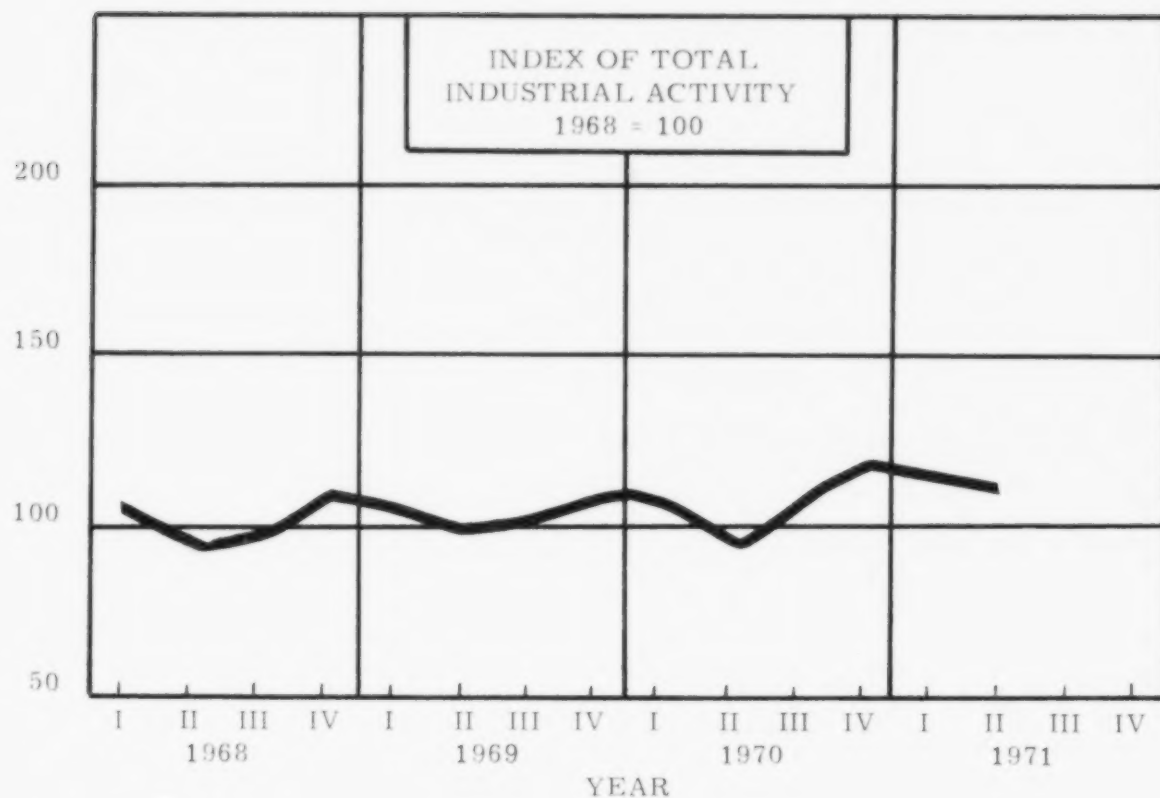
Attention: Mr. E.G. Shaske,
Supervisor, Economic Analysis.

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TOTAL ACTIVITY
1968 = 100

TOTAL ACTIVITY



Note: The Total Activity Index is a composite of the sector indexes, weighted by "value added" to the Alberta economy.

SUMMARY

The fourth quarter of 1970 saw a significant upswing in economic activity in the Province of Alberta. Economic indicators for the first and second quarters of 1971 reinforce the belief that the Provincial economy is on a path of recovery from the moderate growth of 1969 and 1970. Changes in some sectors indicate that the recovery is being accepted in an environment of caution and hesitation, with some, in the business community questioning whether the "inflation psychology" has been curbed or only temporarily abated.

Alberta's 1971 first and second quarter results generally show improvement over the level of activity experienced in the first half of 1970. Total economic activity as measured by the Activity Index revealed a jump in the fourth quarter of 1970, with levelling in the first quarter of 1971. Results for the second quarter indicate a seasonal decline, nevertheless well above the second quarter of 1970.

The adjustment in the first quarter of this year resulted from a temporary drop in grain shipments and the mixed performance in the construction industry. Seasonal declines in the forest products, mining and manufacturing sectors caused the Activity Index to drop in the second quarter.

The indicators making up the Activity Index represent major industrial activity in Alberta and generally are coincident or leaders of economic change. The highlights of this review are as follows:

Pertinent Economic Indicators For The Province of Alberta

Indicator	Percentage Change In Volume Activity	
	Total Year 1970-1969	To Date 1971-1970
Grain Shipments	+57.8	
January-June		+ 0.1
Livestock Marketed	+14.4	
January-June		+ 33.6
Lumber Production	+ 8.2	
January-June		+ 8.2
Lumber Sales	- 1.5	
January-June		+ 94.3
Lumber Exports	-18.1	
January-June		+ 17.6
Pulpwood Production	- 6.2	
January-June		- 83.4
Oil Production	+16.5	
January-June		+ 9.1
Gas Production	-16.0	
January-June		+ 17.8
Footage Drilled	- 9.8	
January-June		- 2.3
Number of Wells Drilled	- 1.6	
Active Rigs end of June 71/70		- 22.5
Coal Production	+53.3	
January-June		+ 35.4
Slaughtered Meat Production	+ 7.8	
January-June		+ 14.5
Slaughtered Meat Exported	+ 9.7	
January-June		+ 13.8
Refinery Production	+ 2.0	
January-June		+ 2.4
Cement Production	- 1.0	
January-June		- 9.8
Urban Dwelling Starts	-31.3	
January-June		+ 82.2
Rigid Insulation Board Shipments	-10.1	
January-June		- 1.5
Metal Shapes Shipments	- 0.1	
January-June		+ 1.5

- 1) Shipments of grain out of Alberta for the first six months of 1971 are up by 1 million bushels over January to June shipments of 1970. The outlook for the 1971-72 crop year for some grains is so favorable that some analysts are questioning the ability of the transportation system to handle future shipments.
- 2) The forest products industry has been dampened by a strike in the pulpwood production sector during the first half of 1971. Lumber sales have reflected the resurgence of the construction industry with the first half of 1971 almost double the same period of 1970. The imposition of the 10 percent surcharge will have a detrimental affect on shipments of lumber from Alberta to the United States.
- 3) Indicators of oil and gas activity have not in past months reflected the entire picture of the industry. The shifting of emphasis to northern exploration has adversely affected statistical results for the Province of Alberta, particularly with regard to exploration for new fields. Some hesitation and reconsideration of major projects has resulted from the June announcement of taxation changes particularly with regard to exploration programs. The U.S. surcharge does not affect shipments of oil and gas south of the border.
- 4) Alberta's coal industry continues to maintain a high level of activity for both the domestic and export markets. Domestic demand continues to rise. In total, production for the first six months of 1971 is up 35 per cent over the same six months of 1970. Recent economic moves in the U.S. have not affected coal exports.
- 5) Comparing the first six months of 1971 and 1970, the meat packing industry has shown positive performance:

Meat Production and Exports
- January - June, 1971

	<u>1971</u>	<u>1970</u> (millions of lbs.)	<u>Percentage Change %</u>
Meat Production	402.1	357.0	+12.6%
Exports	246.9	223.3	+10.6%

To the end of June, 1970 and 1971 gross sales moved from \$213.8 million to \$220.4, up 3.1 per cent. Little effect has been felt by the industry in Alberta due to the imposition of the surcharges by the U.S.

Activity Index - by Sector
Average Quarterly Index for 1968 = 100

<u>Year/ Quarter</u>	<u>Agriculture</u>	<u>Forest Products</u>	<u>Mining</u>	<u>Manufacturing</u>	<u>Construction</u>	<u>Total</u>
<u>1968</u>						
I	108.4	177.6	117.7	108.2	74.0	104.1
II	95.7	66.3	79.1	97.1	111.1	93.6
III	82.1	52.1	98.9	99.6	108.9	97.5
IV	13.9	103.9	113.1	95.3	106.1	108.0
<u>1969</u>						
I	86.7	240.1	127.7	107.2	84.2	106.0
II	92.2	101.7	86.4	92.8	129.5	99.3
III	80.9	87.5	102.6	91.7	122.8	100.8
IV	113.9	110.9	112.4	96.0	111.9	109.3
<u>1970</u>						
I	99.2	257.2	129.8	107.8	80.8	108.8
II	111.6	72.6	83.3	91.2	102.6	95.0
III	119.8	72.5	106.5	103.6	107.9	108.6
IV	126.0	141.8	123.3	107.1	107.8	117.1
<u>1971</u>						
I	106.1	252.3	138.3	117.8	78.1	114.4
II	112.9	58.4	88.8	102.0	124.2	104.5

- 6) Urban dwelling starts are up over 80% above the level of 1970. Cement production for the first six months of 1971 is down almost 10 per cent from 1970's level for the same six months to some extent indicative of non-residential construction activity.

Concern in recent weeks has focused on the effects of international economic and monetary changes. Specifically, on August 15, 1971, President Richard Nixon of the United States outlined a program to stimulate the U.S. economy and counteract attacks on the U.S. dollar. The major points of his program which affect Canada are:

- 1) most imports to the U.S. are subject to a 10 percent surcharge;
- 2) all prices, wages, rents and dividends are frozen at present market levels for 90 days;
- 3) the United States will temporarily suspend the converting of dollars to gold; and
- 4) Industry in the United States will get a 10 percent tax credit on new investment for one year, thereafter 5 percent.

For Canada as a whole, approximately 25 percent of exports to the U.S. will be affected, with those under quota and eligible under the Auto Pact agreement and defence production sharing agreements, exempt. Notable among the exemptible items are Alberta shipments of crude oil, natural gas, butanes, propane, pentanes plus and fertilizer.

In Alberta, the reaction has been one of restraint with a "wait and see" attitude prevailing.

Of immediate concern are the length of imposition of the 10 percent surcharge and the details of next phase of the program. Determination of long run effects, both primary and secondary await this knowledge.

The effects of the 10 percent shurcharge on imports may not be felt for some time, although some manufacturers are already absorbing the tax. A summary by major industry groups has been prepared by the Branch. The information presented of the effects of the Nixon program is based on interviews with selected firms in these industries in Alberta.

EFFECTS OF UNITED STATES PROGRAM ON ALBERTA INDUSTRIES

INDUSTRY	No. of [*] Firms	Employ- [*] ment No.	Degree of ^{**} Impact	Comments
<u>Food & Beverage</u>	461	13,300	Minimal	
Meat Processors	45	4,600	Small Effect	
Poultry Processors	8	500	No Effect	
Dairy Factories	93	2,600	No Effect	Surtax not applicable to most goods.
Grain Mills	91	1,300	No Effect	Limited Shipments to U.S.
Bakeries	165	2,000	No Effect	No exports to U.S.
Beverage	27	1,300	No Effect	No export to U.S.
Other	32	1,100	Some Effect	
<u>Rubber</u>	4	x	No Effect	
<u>Leather</u>	10	165	Serious Effect	Tanneries affected Finished products affect negligible.
<u>Textile</u>	23	625	No Effect	
<u>Knitting Mills</u>	3	x	No Effect	
<u>Clothing</u>	21	2,000	Some Effect	Smaller firms affected

<u>Wood Industries</u>	365	5,700	Serious Effect	
Sawmills	263	1,900	Serious Effect	Producers currently absorbing increase in duty
Veneer and Plywood	3	x	No Effect	
Sash and Door	59	2,100	No Effect	
Pre-fab & Wood Frame Buildings	9	1,000	Serious Effect	
Wooden Box	4	x	No Effect	
Coffin	8	65	No Effect	
Misc.	22	630	No Effect	

<u>Furniture and Fixture</u>	117	1,300	No Effect	
<u>Paper and Allied Industries</u>	19	1,400	No Effect	Pulp excluded from surcharge

<u>Printing Publishing and Allied Industries</u>	220	3,600	No Effect	
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<u>Primary Metal Industries</u>	23	3,100	No direct impact	
Steel Pipe & Tube	5	700	No direct impact	
Iron Foundries	5	330	No direct impact	
Metal Rolling	13	2,050	Very small effect-Few exports	
Smelting and Refining Aluminum			No Effect	

<u>Metal Fabricating</u>	230	6,100	No Effect	Any effect would be secondary
Boiler and Plate Works	7	370	No Effect	Any effect would be secondary
Fabricated Structural Metal	16	2,000	No Effect	Any effect would be secondary
Ornamental and Architectural	43	1,000	No Effect	Any effect would be secondary
Metal Stamping, Pressing, Coating	35	640	No Effect	Any effect would be secondary

Wire and Wire Products	5	130	No Effect	Any effect would be secondary
Machine Shops	95	1,400	No Effect	Any effect would be secondary
Misc. Metal Fabricating	18	420	No Effect	Any effect would be secondary
Other	13	150	No Effect	Any effect would be secondary
<u>Machinery</u> <u>Industries</u>	42	1,400	Small Effect	
Agricultural	16	440	No Effect	Agricultural implements exempt but other equipment affected
Misc. Machinery & Equipment Manufacturing	26	950	No Effect	
<u>Transportation</u> <u>Equipment Industries</u>	75	3,100		
Truck Body and Trailer	51	1,800	No Effect	Few exports
Aircraft and Parts Manufacturers	14	790	Secondary Effect	
Misc.	10	500	Serious Effect	All-terrain vehicles exempt under Auto-Pact. Spare parts affected.
Motor Vehicle Parts			No Effect	
Boats			Serious Effect	Exports to the U.S.
<u>Electrical</u> <u>Products</u>	17	660		
Communications	6	230	Some Effect	Some loss of contracts may occur
Electrical Industrial Equipment	11	430	No Effect	
Battery Electric Wire & Cable			No Effect	
Misc.			No Effect	
<u>Non-Metallic Mineral</u> <u>Products Industries</u>	105	3,700	No Effect except for Clay	Few exports of Clay

<u>Petroleum and Coal Products</u>	16	1,060	No Effect	Exempt
<u>Chemical and Chemical Products</u>	43	2,300	No Effect	
Soaps and Cleaning Compounds	7	75	No Effect	
Industrial Chemicals	12	1,500	No Effect	
Printing Inks	4	25	No Effect	
Other	20	770	No Effect	
<u>Other Manufacturing Industries</u>	181	x		
Plastic Fabricators	32	x	Effect-Serious	One plant plans to move to California

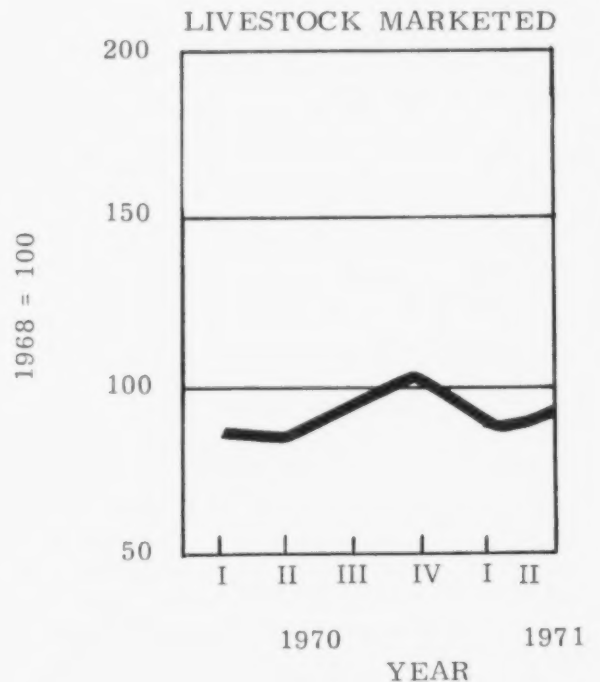
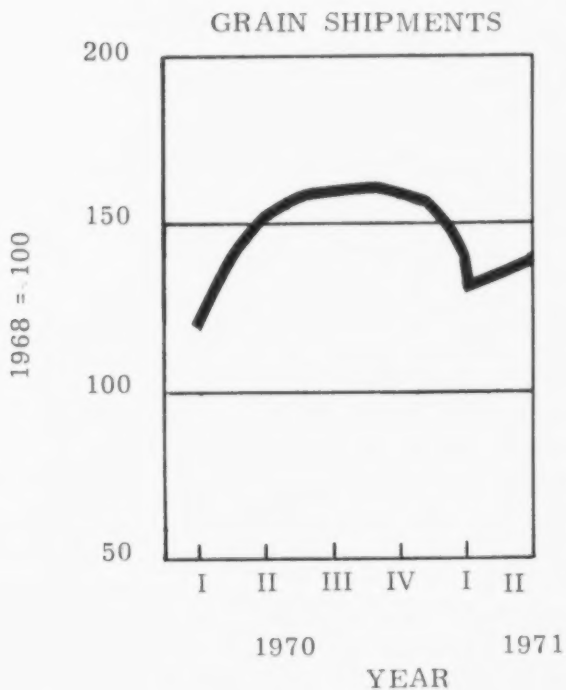
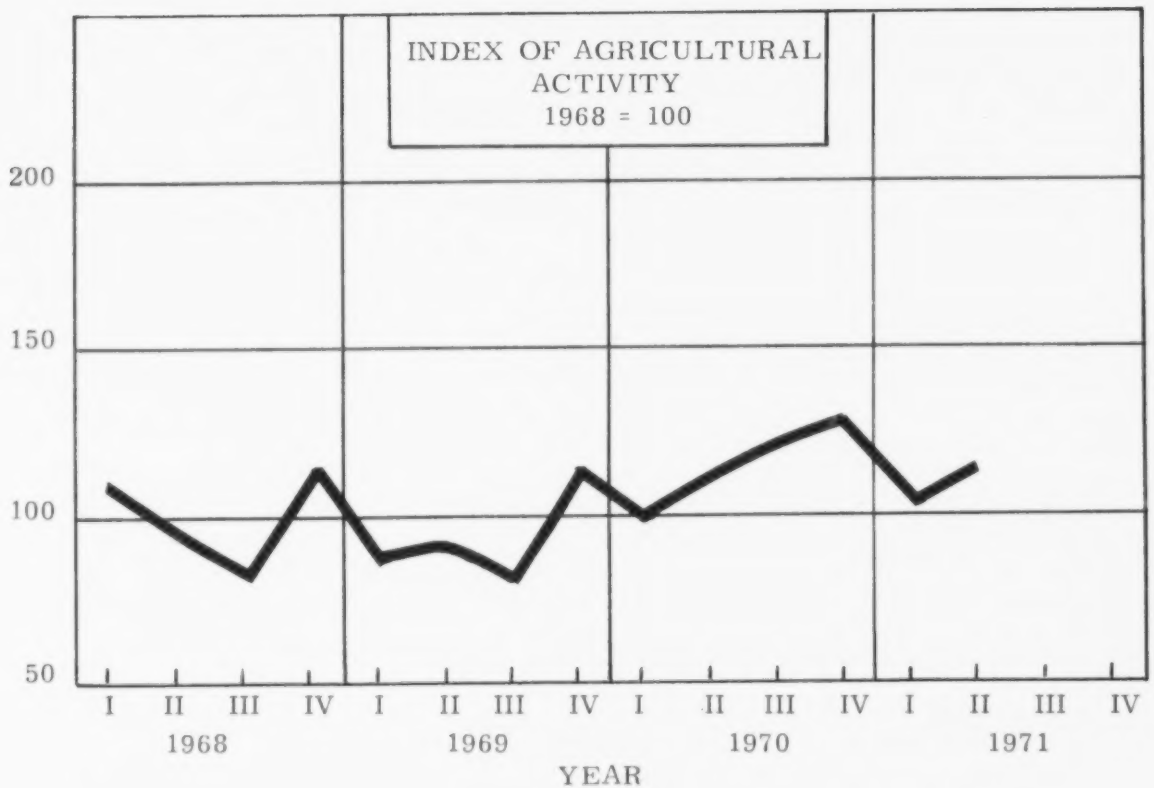
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* Source: Alberta Industry & Resources - 1970 Edition

** The degree of impact is based on interviews with executives in selected firms.

AGRICULTURE

AGRICULTURAL ACTIVITY
1968 = 100



Note: The Agricultural Activity Index is a composite of grain shipments out of the Province and number of livestock sold at Public Stockyards, weighted by the cash receipts for the components.

AGRICULTURE

The outlook in the agricultural sector for the balance of 1971 is for further expansion of activity and increased dollar returns. The Agricultural Activity Index is expected to climb to an average level of 121 (1968 = 100), 6 per cent above 1970 performance and fully 30 per cent above 1969. Reflecting this increase in activity and in expected favorable price movements, particularly in the grains sector, farm cash receipts are expected to grow by 9 per cent.

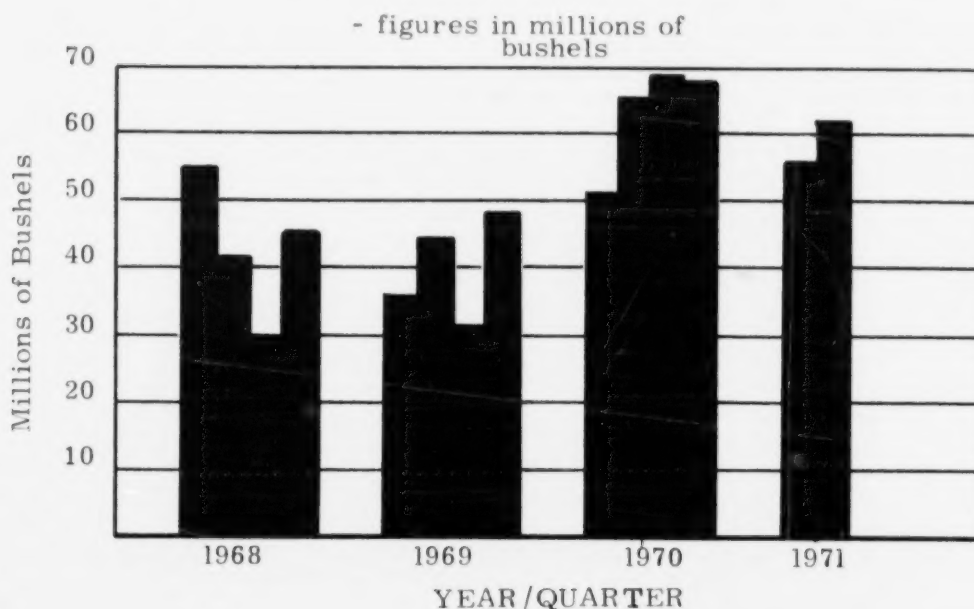
In the first quarter of 1971 a temporary dip in grain shipments and a levelling in number of livestock sold at public stockyards forced the Activity Index to 106, down from the 126 realized in the fourth quarter of 1970 yet 7 per cent higher than the first quarter of 1970.

Comparing the second quarter of 1971 to the first, grain shipments increased by 7 per cent and livestock marketed by 5 per cent. The Activity Index moved to 113, approximately equal to 1970's average and well ahead of 1969's average level of 93. For the balance of the year, the level of activity in the agriculture sector will continue to rise as the outlook for grain shipments is very favorable and livestock being marketed expected to sustain its traditional strength.

Although some farm products are affected by the temporary 10 percent U.S. surcharge, it is expected that there will be minimal effects on grain shipments out of Alberta elevators. Small effects will be felt in the export movement of oats and barley.

Positive changes in grain movements were first noted in the fourth quarter of 1969 when shipments began to grow steadily from the lows experienced that same year. Contributing to Alberta's improved grain marketing position were a reduced U.S. corn harvest, reduced levels of wheat production in other parts of the world, increasing foreign and domestic demand for oilseed and oilseed products and more competitive pricing and marketing by local and national marketing boards. Further, Operation LIFT stimulated a shift away from intensive wheat production where critical inventory and disposition problems had already developed.

QUARTERLY GRAIN SHIPMENTS

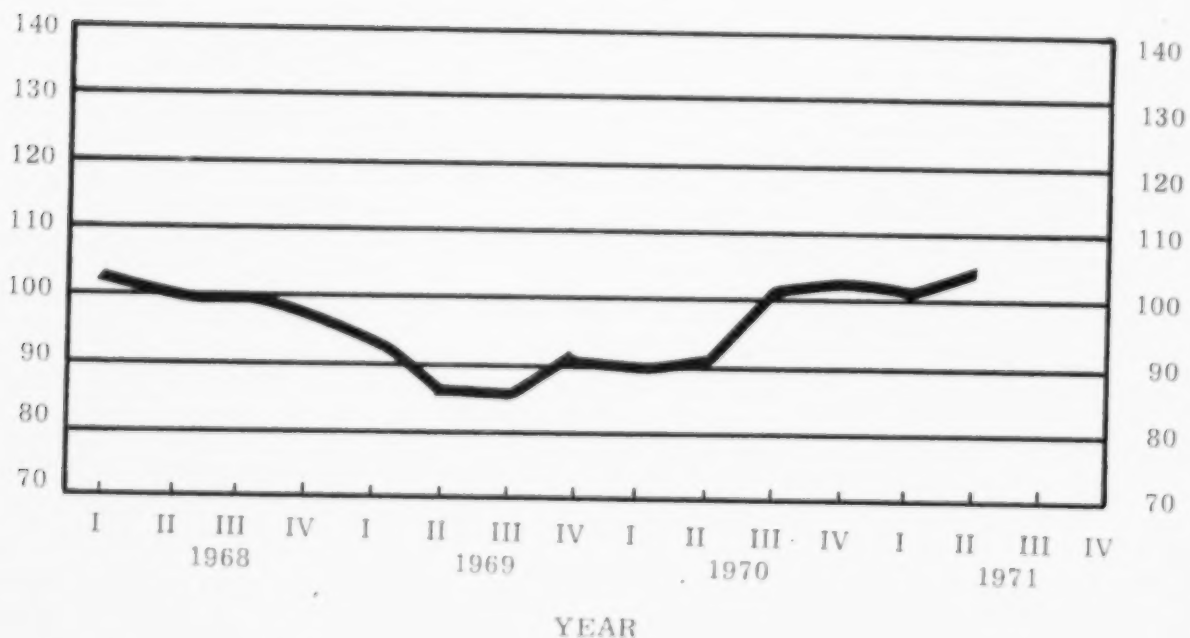


Grain during the first and second quarters of 1971 has been moving out of Alberta elevators at an average rate of 20 million bushels a month, a rate equal to 1970 shipments and 45 per cent above the 1969 rate.

An already favourable outlook was enhanced by the June announcement of a 130 million bushel wheat sale to the U.S.S.R. Delivery of the wheat is expected to begin almost immediately and will affect shipments throughout western Canada for the balance of 1971 and into 1972. This sale is expected to push Canadian grain exports close to the 690 million bushel mark, which if realized, will set a new record for export deliveries, alleviate the disturbing wheat inventory problem, and infuse needed dollars into Western Canada's agricultural economy.

Further indications that mainland China could favor Canadian agricultural imports have improved the long range prospects for Canadian farm products considerably.

INDEX OF MEAT SLAUGHTERING in the PROVINCE of ALBERTA 1968=100



Activity in the livestock sector is expected to gain momentum as the general economy expands. Slaughtering and meat packing volumes remained stable in both domestic and export markets in contrast to the general slowdown of Canadian economic activity in 1970 and an adverse effect of prices on cash receipts. When comparing the first quarter of 1971 to 1970, production in the meat packing industry increased over 13 per cent. Numbers of livestock being slaughtered are up over 3 per cent and hogs up almost 50 per cent. In the first quarter of 1971, 124 million pounds of meat were exported; over 15 per cent above the first quarter of 1970. Livestock marketings are not expected to be adversely affected by the U.S. surcharge, although certain classes of livestock exported to the U.S. will be subject to an additional tariff. In general, most meat products are shipped to eastern Canadian markets and are, therefore, not directly affected.

Prices for cattle and calves have strengthened, but lower marketing activity through public stock yards, reflecting the producers' desires to build up herds, has lowered receipts to the producer. Hog marketings are up substantially, however to date, prices are down from 1970 levels. In total, cash receipts to the livestock producer for the first quarter recorded a 12 per cent decline from last year's performance. Cash receipts from the marketing of beef and pork are expected to at least match 1970's total.

For the livestock producer, the outlook for 1971 has been partially impaired by expectations in the grain sector. Improved grain shipments to foreign markets and comparatively higher prices for barley have intensified the cost-price squeeze for the producer. As the price of the livestock producers' products are more dependent upon inventories than cost of inputs, their profit margins will be adversely affected. To reiterate a comment

made in January, 1971 in "Executive Report":

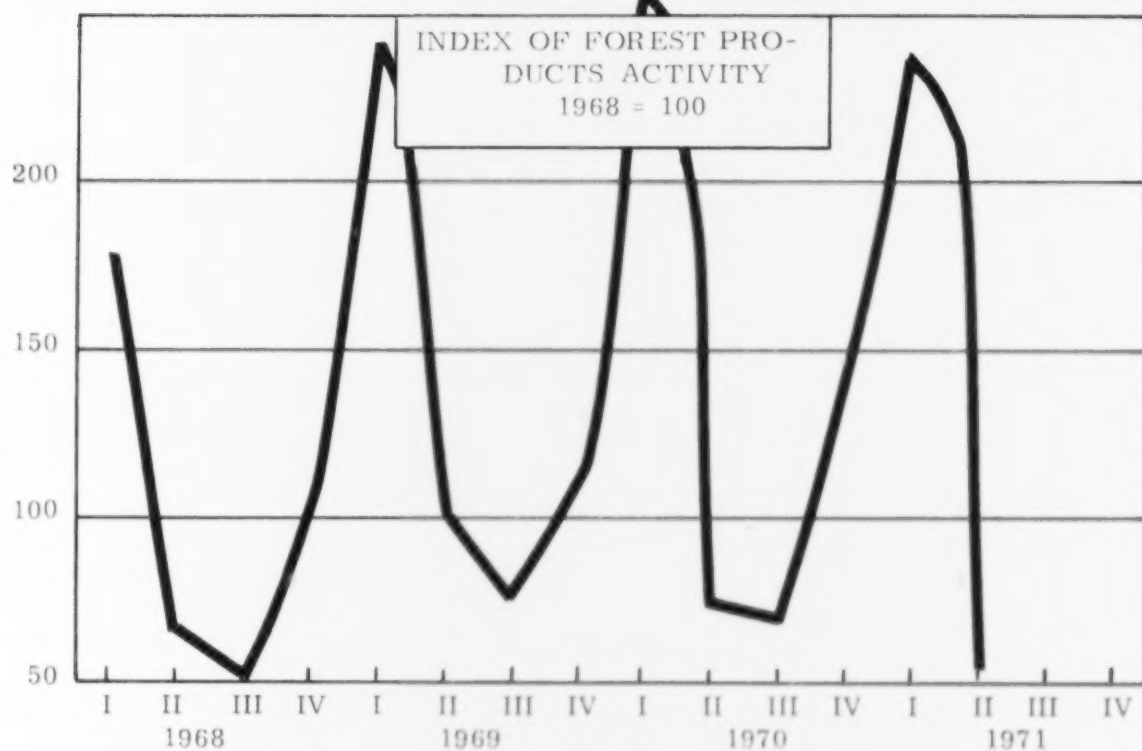
"1971 should see some improvement but many farmers have little faith in grain price stability and/or markets. Many have invested in expensive feed lots and hog barns, and must now continue the operation."

Alberta poultry and egg producers are in a period of uncertainty with inter-provincial trade wars affecting marketing procedures and dollar returns. Hope for settlement and a return to normal conditions are pending finalization of the voluntary quota system recently agreed upon by provincial premiers. The Alberta consumer and producer have fared well, as prices, production and consumption have remained relatively steady. No surcharge effect is recorded on poultry and egg marketings as virtually no shipments of these products are made to the U.S.

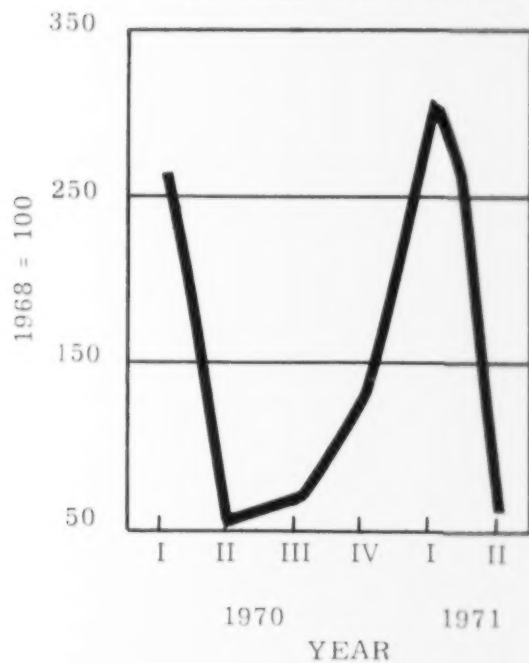
Improvement in the total agricultural outlook has benefited other sectors of the agricultural economy. Sales of farm machinery (wholesale) in Alberta are 38 per cent above those for the same period one year ago. The deferment of purchases by farmers in 1968 and 1969 are now being realized by the distributor. Farm machinery exports to the U.S. are exempt from any tariffs so therefore Alberta manufacturers will not feel a squeeze on their U.S. bound shipments.

FOREST PRODUCTS INDUSTRIES

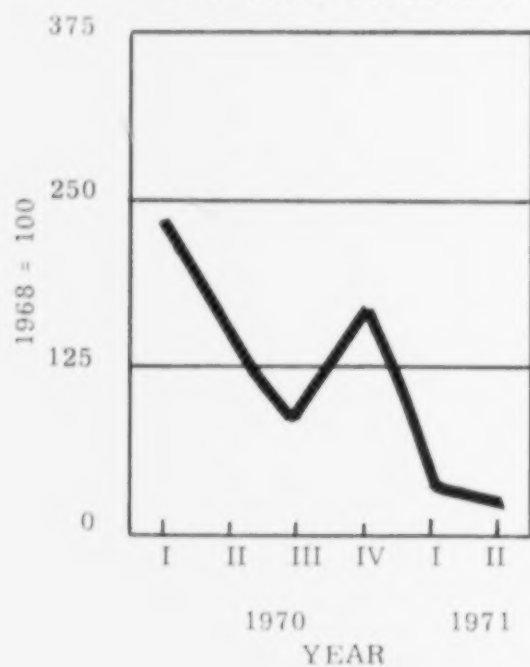
INDEX OF FOREST PRODUCTS
ACTIVITY
1968 = 100



LUMBER PRODUCTION



PULPWOOD PRODUCTION



FOREST PRODUCTS INDUSTRIES

Activity in the forest products industries in 1971 is expected to overshadow 1970's performance. The average quarterly Index of Forest Products Activity is expected to climb to 150, an increase of 10 per cent over the 1970 level of 136.

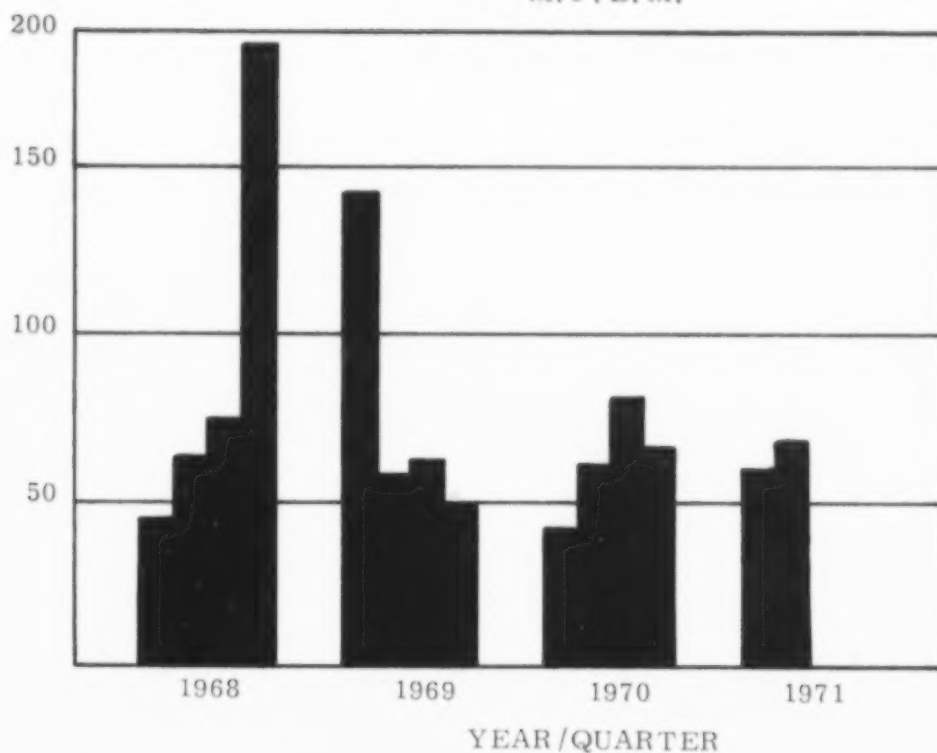
Index of Forest Products Activity
- by quarter
1968 = 100

<u>Year/Quarter</u>	<u>I</u>	<u>II</u>	<u>III</u>	<u>IV</u>	<u>Average</u>
1968	178	66	52	104	100
1969	240	102	88	111	135
1970	257	73	73	142	136
1971	252	58			150 (forecast)

The two components comprising the above index are lumber and pulpwood production in the Province of Alberta. The 1970 construction slump experienced in Alberta and elsewhere had a significant effect on lumber production. A logging strike in the pulpwood industry during the first and second quarters of 1971 resulted in a drop in the Activity Index to 252 and 58, respectively. Normal activity in the pulpwood sector would have brought the index close to the 300 mark, well above the 257 realized in the first quarter of 1970.

The outlook for lumber production and sales in Alberta has been particularly enhanced by the resurgence of construction activity in Canada and the United States. For the first half of 1971, production is up over 8 per cent from the first half of 1970; exports are up over 17 per cent. Sales dollars and volume are about double 1970's levels reflecting the increased activity in the housing industry. The factors which make the outlook for the balance of 1971 optimistic are precisely those factors which caused declines in 1970; that is, the building construction industry--the largest single user of Alberta lumber.

QUARTERLY LUMBER EXPORTS
out of the PROVINCE OF ALBERTA
- figures in thousands of
M. F. B. M.



Lumber exports from Alberta are particularly important, accounting for over 30 per cent of all Alberta production. The largest market for Alberta exports is the western United States where equally optimistic expectations for residential construction are common. However, the windfall lumber exports to the United States experienced in the latter part of 1968 and the beginning of 1969 are not expected to reoccur. The adverse weather conditions coupled with sustained exports of softwood lumber to Japan during the 1968-69 winter created critical inventory shortages in the western United States. The result was an unusual jump in export shipments to the U.S.A. from Alberta.

The August 15, 1971, U.S. announcement of a temporary 10 per cent surcharge seriously affects Alberta's lumber industry and clouds previously mentioned export expectations into 1972. On January 1, 1972, the U.S. tariff as applied to lumber is to be removed according to General Agreement on Tariffs and Trade regulations. Producers are currently absorbing the additional cost awaiting with concern the U.S. action on the tariff removal in light of the recent imposition of the 10 per cent surcharge. Also adversely affecting forest product producers' profit position was the unpegging of the Canadian dollar earlier this year.

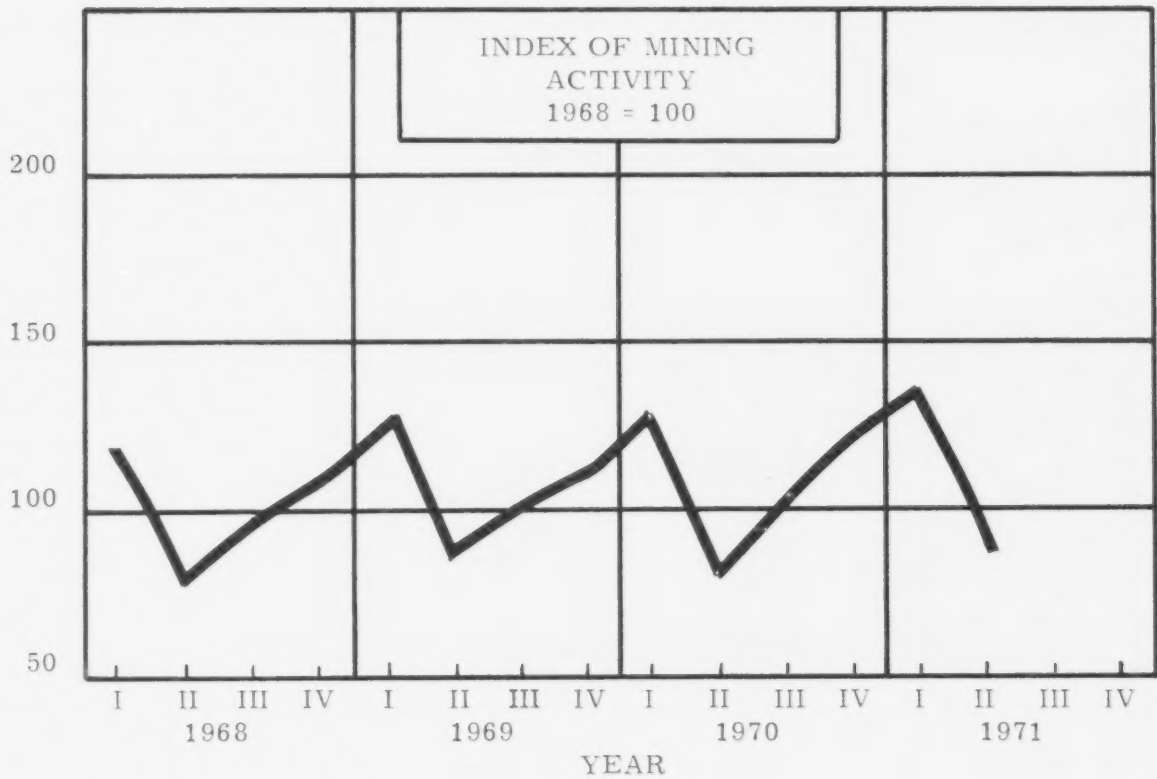
The adjustment of lumber inventories to more realistic levels in the Western United States has rendered the Alberta picture very favourable, though the producer should not expect export levels to equal that of the 1968-69 winter. Similarly, the lumber shortage during the export bonanza of 1968-69 stimulated prices to levels well beyond those expected in the immediate future. Nevertheless, price improvements approximating 6 per cent and a noticeable improvement in residential construction demands will

improve the profit of Alberta producers substantially over the deficits of 1970.

Prospects for the pulpwood industry to revert to normal production levels are favourable, although results for the first half of 1971 were impeded significantly by a strike in the logging operations of Alberta's only pulpmill. Production of pulpwood in the first half of 1971 is down by over 80 per cent from 1970's first half, directly attributable to the strike. The strike which lasted from February to May not only dampened the activity index of the forestry industry, but virtually nullified prospects for record pulpwood production this year. The expected resumption of production has given rise to expectations of substantial increases in activity, both to build up inventories and to make up for time lost during the strike.

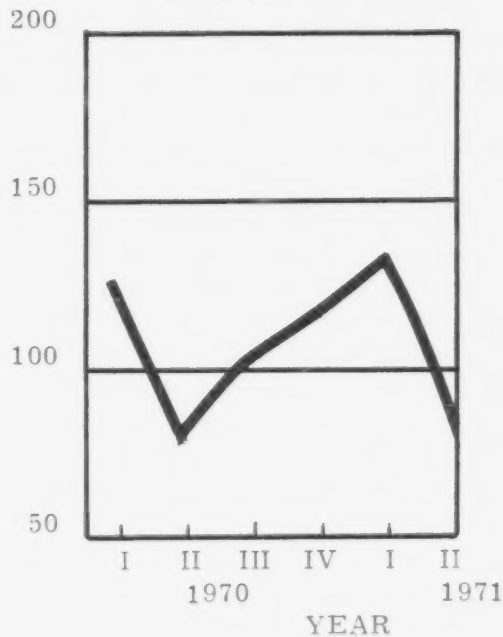
MINING

MINING ACTIVITY
1968 = 100



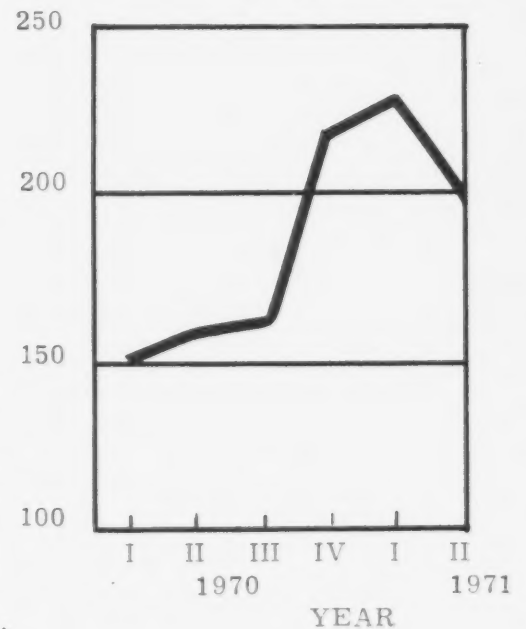
PETROLEUM

1968 = 100



COAL

1968 = 100



Note: The Mining Activity Index is a composite of petroleum activity within the Province (including oil and gas production, along with well footage drilled) and coal production, weighted 97 percent to petroleum and 3 percent to coal.

MINING

The Petroleum Industry

The forecast for the petroleum industry during the current year and the immediate future is mixed. In general, it is anticipated that production and investment in production is expected to at least maintain the growth experienced over the past few years. Sales are also expected to continue to increase, particularly in response to U.S. quota relaxations. The revenue position of petroleum producers has been further enhanced by recent price increases and the exemption of all oil products from the temporary 10 percent surcharge imposed by the U.S. Any further price increases will be dependent upon the value of the Canadian dollar vis-a-vis the U.S. dollar.

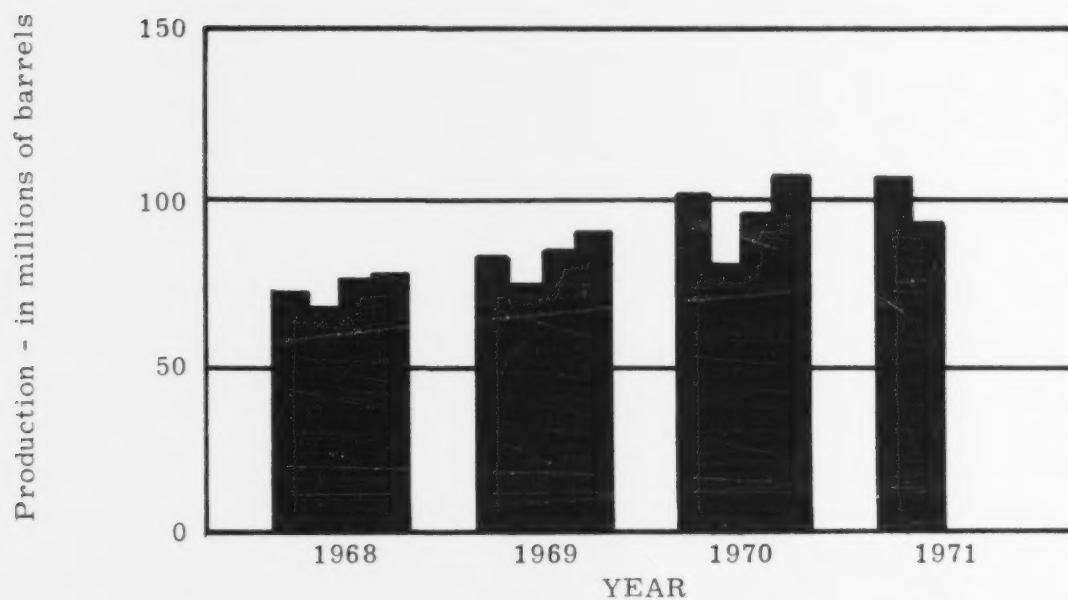
Although oil products are exempt from the surcharge, specialized oil equipment manufacturers will feel the bite of the added tax. Already feeling the effects of decreased activity in the oil industry in Alberta, their profit margins are expected to be reduced for the balance of the year.

Oil exploration within the province, in the short run, is not expected to increase substantially, with the greater impetus directed toward northern Canada. Nevertheless, Alberta will remain the distribution and control centre for the Canadian petroleum industry. Thus, the greatest portion of the dollars to be expended on exploration will be funnelled through Alberta head offices and warehouses.

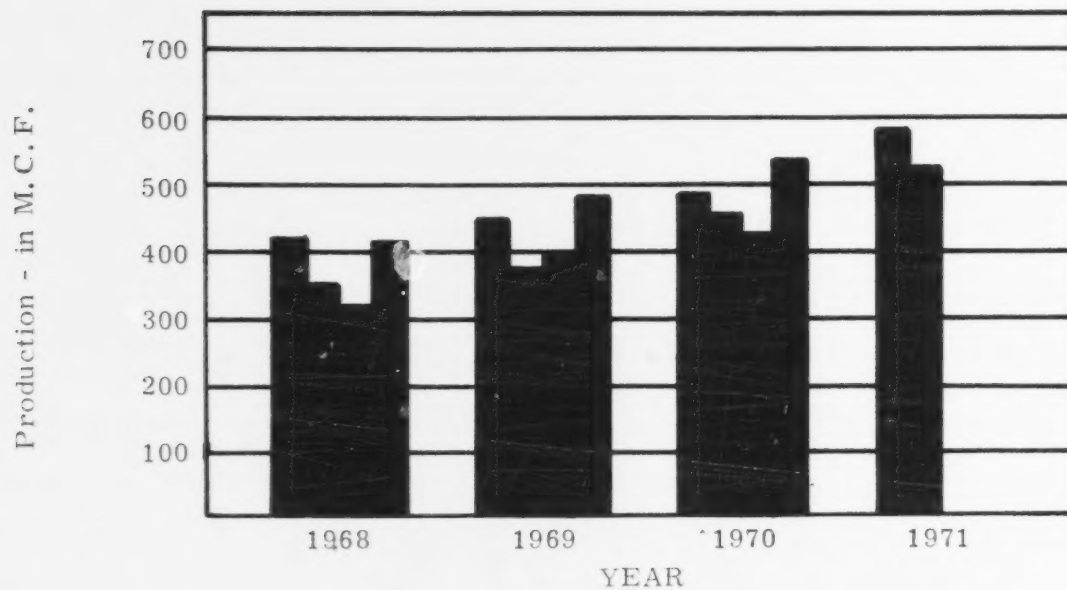
Gas processing is currently undergoing a re-evaluation in light of prevailing secondary product prices. Nevertheless, first quarter industry estimates indicate plant investment for 1971 will reach \$270 million,

PRODUCTION ACTIVITY - PROVINCE OF ALBERTA

Production - Crude Oil and Equivalents
-in million barrels



PRODUCTION - NATURAL GAS
-millions of cubic feet



over \$200 million higher than the investment made in 1970. The depressed price of sulphur has not over-shadowed the high demand for natural gas. Expectations are that exploration activity in Alberta and the north will pick up considerably over the next year.

In the realm of transmission facilities where capacity is already taxed, significant activity appears imminent.

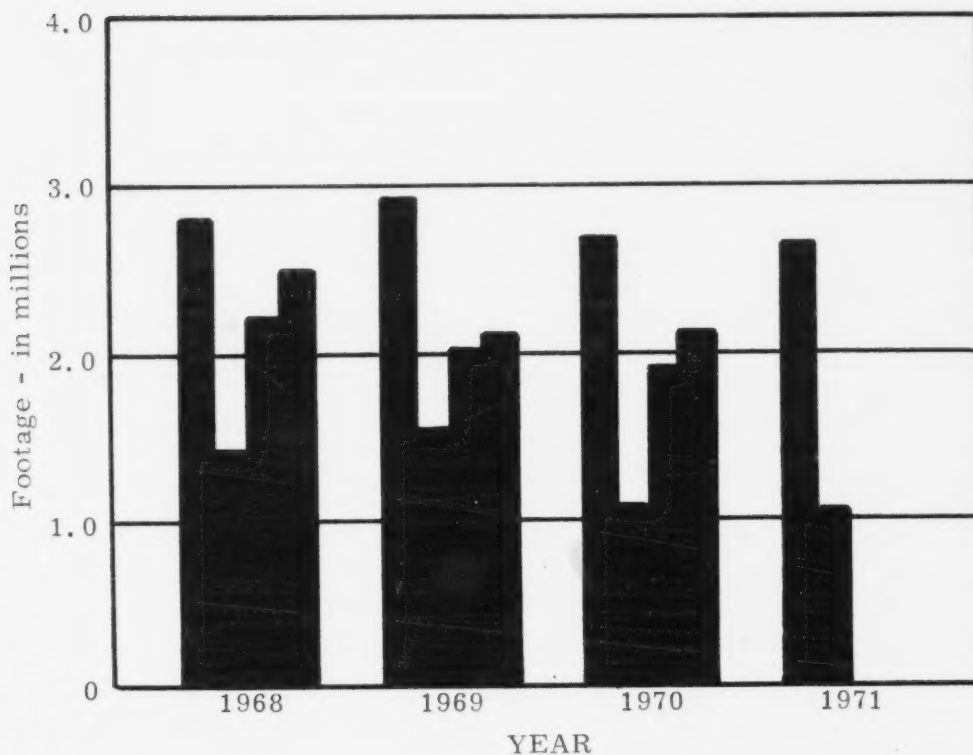
While demand-induced petroleum production continues to rise, the overwhelming importance of the U.S. markets combined with the uncertainties of future U.S. government positions, Canada's imminent tax law amendments and general conditions of competing producer nations has tended to introduce some hesitancy into the Canadian producers' decisions for expansion of production facilities.

In 1970, production of crude oil and equivalent stimulated by a strong U.S. demand, rose by 16.5 per cent or 147,600 barrels per day (b/d) to 1,041,900 b/d. Exports out of Alberta rose sharply by 41.9 per cent to 926,179.2 b/d to account for about 90 per cent of production, while domestic demand in Alberta rose by only 1.8 per cent to over 111,000 b/d. Exports to the U.S. increased by 21.7 per cent or 100,164 b/d to 560,870 b/d.

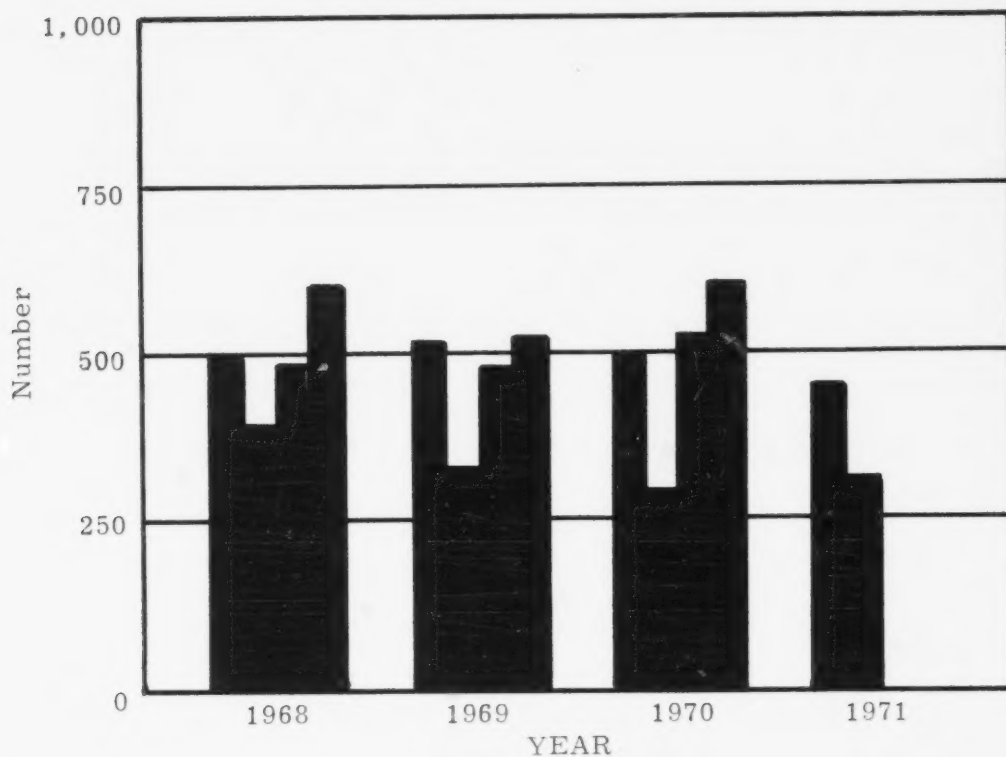
Assuming exports will be constrained only by physical capacity of transportation lines, production of crude and equivalent is expected to increase by an additional 130,000 b/d from 1970 to over 1,200,000 b/d in 1971. Again, the increase will largely be attributable to exports from Alberta which are forecast to rise to about 1,000,000 b/d, with Alberta consumption expected to rise by only a marginal 3 per cent to approximately 115,000 b/d.

DRILLING ACTIVITY - PROVINCE OF ALBERTA

Total Footage - in millions of feet



Number of Licences Issued



The results of the first quarter of 1971 indicate that the anticipated rate of production was not achieved, primarily owing to deferred revision of import quotas by the U.S. government. This produced a resistance among importers to take full advantage of increased quotas initially, thereby influencing oil export figures during the remainder of the year. It is anticipated that this situation will be overcome through the remainder of the year producing an average production index for 1971 of 145, approximately 14 per cent ahead of the average of 1970.

Although quota relaxation will stimulate this increase in crude oil production, major capital investment in facilities within the province will be retarded due to rising interest rates and the absence of significant new crude discoveries. It would appear that the predicted increases in production are most likely to come from increased utilization of existing facilities.

The growing concern with environmental pollution and the rising relative costs of alternative fuels will present a continuing stimulus to the growth of natural gas production. While industry predictions this year forecast an increase of about 11 per cent, other factors would indicate a growth in production closer to 15 per cent, bringing the production index for gas up to an average of 148 for 1971.

Despite expectations within the oil industry of an increased volume of drilling activity in 1971, it would appear that activity for Alberta in 1971 will approximate that of 1970. The principal factors supporting this conclusion are the absence of any significant new finds within the province, the recent tightening of the money market, the shift of interest by the major oil producers to the North Slope, and finally, the uncertainty associated with the federal tax proposals.

An analysis of the contributing factors, would appear to indicate a level of well completions roughly on par with those experienced in the past several years. In particular, this would seem to indicate exploratory well completions approximating 1,000 in number with development wells again slightly over the 800 level. However, decreasing average well depths in the past few years would tend to indicate a decline in the absolute footage drilled for the current year. The declining well depths is a continuation of a trend established in 1968. During the past three years, the average depths of well completions have been 5,357 feet in 1968, 4,636 feet during 1969 and 4,224 feet for 1970. On index, 1968=100, these values translate to 100, 87 and 79 respectively.

Increased domestic and foreign consumption of Alberta natural gas has led to significant overproduction of sulphur, expected to increase to 6.0 million long tons. In contrast, anticipated sales are not expected to exceed 3.5 million long tons. However, this represents a 15 per cent increase over 1970. Plant inventory is expected to increase to a level of 5.9 million long tons in 1971.

The pressure of world overproduction has reduced Alberta prices to an average return of less than \$8 per ton. This is less than one quarter of the price of \$33 per ton prevailing in January 1969. The existence of substantial world stocks appears to rule out any early price recovery. This situation is aggravated by the significant increase in production capacity expected to be realized this year. Therefore, despite a rising trend in sales, revenues are expected to be about \$28 million (approximating those of 1970) which represents only 37 per cent of the revenue level in 1968. Such conditions in the sulphur market have and will continue to affect profit evaluation on any new investments undertaken.

Sulphur Production
(Millions of Long Tons)

<u>Year</u>	<u>Production</u>	<u>Year-end Inventory in Alberta(Plant)</u>
1971 Forecast	6.0	5.9
1970 Estimate	4.2	3.4
1969	3.7	2.3
1968	3.0	1.3

Source: Summary of Monthly Statistics, Alberta Energy and Resources Conservation Board.

Of particular concern to the oil and gas industry are the proposed actions of the federal government in the White Paper on Taxation. The proposals detailed in the white paper could significantly affect the profitability of exploration and development activity for the industry. In late June of 1971 a "Summary of 1971 Tax Reform Legislation" was made public with excerpts pertinent to the oil and gas industry listed below:

-Three-year tax exemption for new mines will be withdrawn after 1973 and replaced by an accelerated write-off of capital equipment and on-site facilities, including townsite facilities such as sewage plants, roads, schools and hospitals. The accelerated write-off will also apply to a major expansion of an existing facility where capacity is increased by at least 25 per cent.

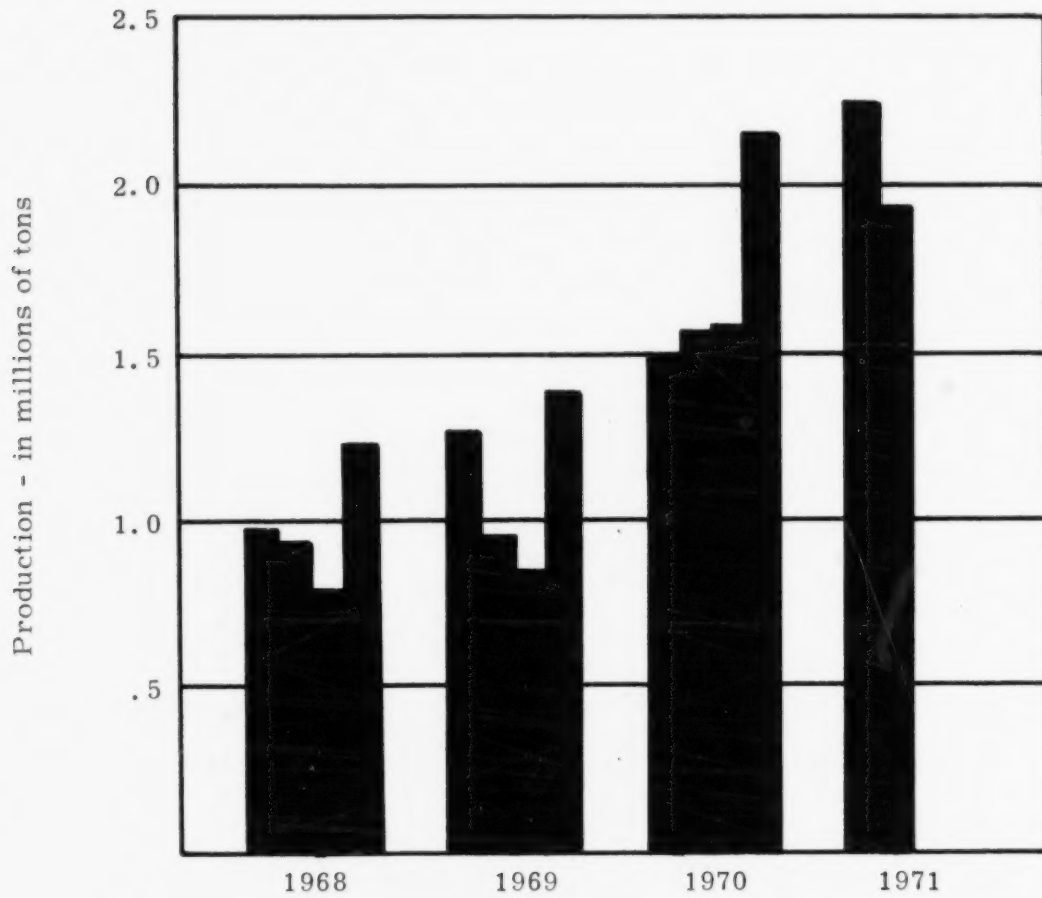
-Present system of automatic depletion for mining and petroleum corporations will continue until 1976.

-After 1976 the 33 1/3 per-cent operators' depletion will have to be earned at the rate of \$1 for every \$3 of eligible expenditures.

-After 1976, the 25 per-cent non-operators' depletion will be cancelled. Starting in 1977 royalty income will be classed as production income and will be eligible for the 33 1/3 per-cent earned depletion.

-All eligible expenditures after November 7, 1969 will earn depletion, and the White Paper list of eligible expenditures is expanded. Earned depletion can be accumulated until 1976 and applied thereafter against income.

COAL PRODUCTION - PROVINCE OF ALBERTA
- in millions of tons



-Federal corporate tax abatement on mining profits increased by 15 percentage points. This abatement which commences in 1977 would also apply in the Yukon and Northwest Territories.

-Shareholders' depletion allowances of up to 20 per cent on dividends from mining and petroleum corporations are discontinued.

Although the full impact of the tax reform measures on the oil and gas industry are still being studied by budget analysts, it is already evident that starts on some major projects are being reconsidered on the basis of long-term profitability.

Coal Production

The Japanese demand for coal has provided considerable stimulus to the revitalization of the Canadian and more importantly the Alberta coal industry. Production has continually climbed. By the first quarter of 1971 physical coal production achieved an index value of 227, with an absolute value of two and one-quarter million tons. This production is up significantly from the 1970 average quarterly index of 173. The second quarter index fell to 196, apparently due to seasonal shutdowns for electric power plant maintenance and flooding in some mining operations. However, the second quarter's production is still 13% above the 1970 index average. With production ahead of 1970 and no effects of the 10% surcharge being felt on coal shipments, the prospects for the second half of 1971 are good. Growing emphasis on pollution may secure continued markets for low sulphur Alberta coal.

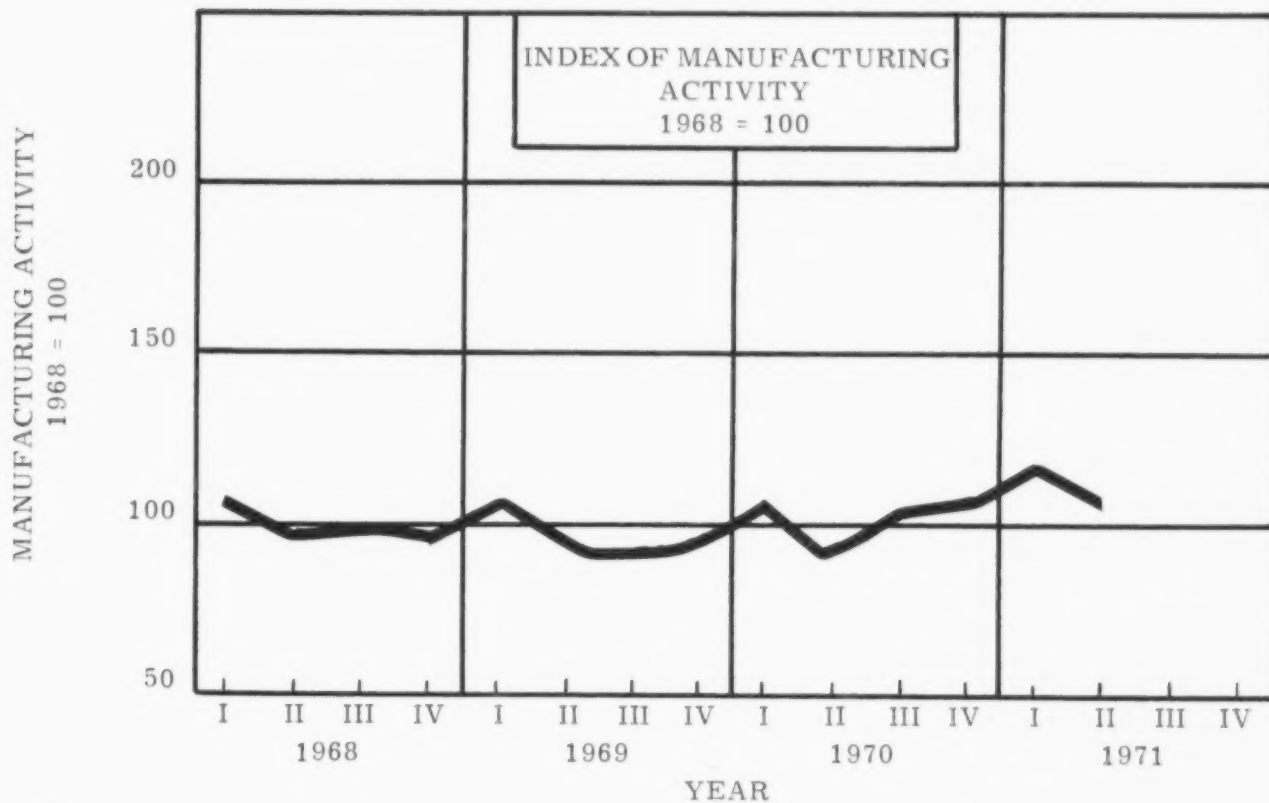
The virtually insatiable demand for coal by Japan and the ever increasing domestic demand will ensure the sale of Alberta's production and give further impetus to greater development. Negotiations are currently underway with some producers for an increase of contracted production of as much as 175 per cent, which would increase Japanese-contracted output from 2.0 to 5.5 million tons annually. The demand for such coal indicated by

Japanese needs will serve to stimulate both development of new coal bearing areas and full utilization of developed sites.

Recent statements made by Japanese coal consumers indicate that current contracts are not being met. This suggests that production levels and/or transportation capabilities must be expanded before additional coal contracts can be expected.

In view of current market conditions, generally favourable prices and exemption from the 10 percent U.S. surcharge, it is expected that coal production will continue to expand steadily throughout the remainder of the year. The index of production is expected to rise to about 235 for the third quarter of 1971. Indeed, the future of the coal industry in Alberta remains extremely optimistic, with expectations of further enhancement by the growing long-term markets in Eastern Canada, United States and Japan.

MANUFACTURING



Note: The Manufacturing Activity Index is a composite of meat slaughtering, sawmill, cement, and refinery production weighted by the value of the components.

MANUFACTURING INDUSTRIES

The 1970 value of manufacturer's shipments in Alberta were estimated by the Alberta Bureau of Statistics at over \$1.9 billion, an increase of nearly 5 per cent in value of output from 1969. This compares favorably to the national figures where shipments increased by less than 1 per cent. Alberta's favorable performance, in light of the unsettled state of the national economy, varied within industries. This performance is exemplified by the food and beverage industries which recorded an increase in value of shipments of 7.8 per cent when comparing 1970-1969. This compares to a 5.4 per cent decline in the non-metallic mineral products sector. Primary metal manufacturers recorded an increase of about 9 per cent; machinery manufacturers a decline of 9 per cent; and chemical producer's an increase of 4.5 per cent.

Seriously affected by the recent imposition of 10 percent surcharge by the U.S. are major manufacturers of leather, veneer and plywood, lumber, plastics and prefabricated housing. In general, most Alberta manufacturers do not export or are exporting under quota and other trade agreements to the U.S. Therefore, they are bearing little or no additional costs. Expectations for the third quarter and the balance of 1971 are uncertain, pending any U.S. announcement of how "temporary" the 10 percent surcharge is.

The Manufacturing Activity Index recorded an average increase in activity of over 5 per cent. Setting 1968 equal to 100, the average quarterly indices for 1969 and 1970 were 97 and 102, respectively. For the first quarter of 1971, the index jumped to 118 or almost 10 per cent above the level recorded in the first quarter of 1970. The main impetus

for this first quarter's results arises from significant improvement in meat packing activity, saw mill production, and manufacturing related to the housing industry. Second quarter results indicate a drop in the index to 102, still 10 percent above the corresponding period of 1970.

Pertinent to the outlook for the manufacturing sector are exports of Alberta-made goods. For the first half of 1971, lumber exports are up almost 18 per cent when compared to the first half of 1970. Slaughtered meat exports are up 14 per cent for the same period.

In a survey of executive opinion conducted in early 1971, the expectations for the ensuing year were solicited. Below is a table projecting an 8 per cent increase in manufacturing shipments in 1971 over 1970 level.

Sales Revenues of Manufacturing Industries
-by type

<u>Description</u>	<u>Average of¹ Predictions</u>	<u>Estimated 1970 Value of Manu- facturing Ship- ments in \$'000²</u>	<u>1971 Estimates</u>
Food and Beverages	+8%	770,000	830,000
Textiles, Wood Products			
Paper and Allied Industries	+15%	263,000	300,000
Primary Metals	+11%	166,000	185,000
Machinery and Equipment	+17%	95,000	110,000
Non-Metallic Mineral	+2%	105,000	110,000
Chemical and Chemical Products	+15%	117,000	135,000
Others not included in executive survey, assuming same performance in 1971 and experienced in 1970	-	426,000	426,000
TOTAL	+8%	1,942,000	2,096,000

(1) Source: "Executive Report" - 1971

(2) "1970 Annual Review of Business Conditions",
Alberta Bureau of Statistics

This projection appears consistent with recent years performance as indicated in the following table:

Value of Manufacturing Shipments: Alberta
1967-1971

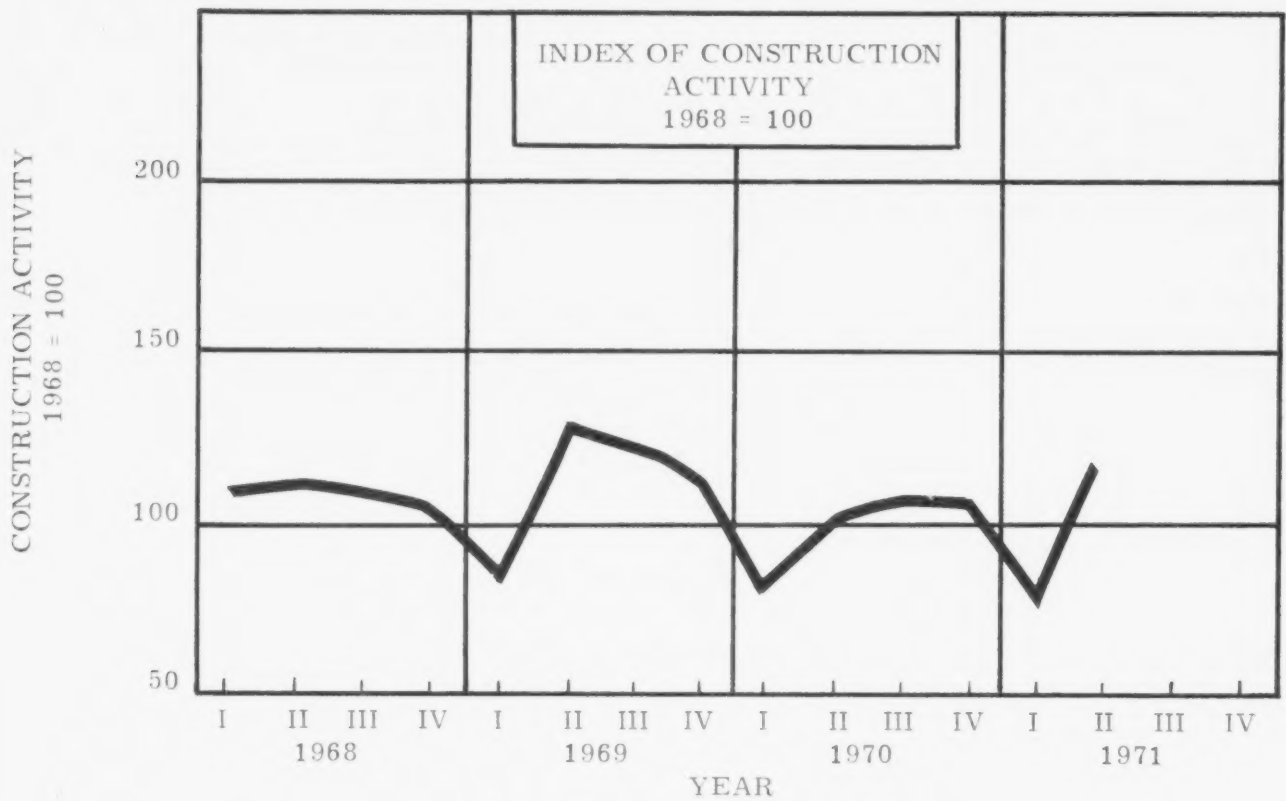
<u>Year</u>	<u>Value (\$'000)</u>	<u>% Change year/year</u>
1967	1,554,985	-
1968	1,667,400	+ 7.2
1969	1,885,900	+13.1
1970	1,942,000 ²	+ 3.0
1971 (Forecast)	2,096,000 ²	+ 7.9

Source: (1) "1970 Annual Review of Business Conditions", Alberta Bureau of Statistics.

(2) Estimate based on "Executive Report, 1971".

Particular note should be made of expectations in the non-metallic minerals sector including cement, concrete and concrete products manufacturers. The rather nominal increase of 2 per cent results from varied responses within the survey. About two-thirds of the respondents in the non-metallic minerals sector forecast increases between 5 and 10 per cent in revenue, whereas a third projected a drop of approximately 10 per cent. This reflects the caution and uncertainty prevailing in the construction industry. Even though monetary policies have eased and the restrictive deferment of capital cost allowances has expired, the respondents remain uncertain as to whether the effects will increase activity substantially in 1971. On the other hand, there is justifiable optimism in the primary metals sector. Current estimates of pipeline construction and actual pipe orders will tax the capacity of current manufacturing facilities in 1971 and well into 1972.

CONSTRUCTION



Note: The Construction Activity Index is a composite of:

- a) housing starts
- b) cement production
- c) a metal shapes shipment index

weighted by the value of the components.

CONSTRUCTION

"The construction industry was hit hardest by federal government action to curb inflation. For Alberta in 1970, restriction of mortgage monies, high interest rates and the discriminatory deferment of capital cost allowances led to a severe curbing of building construction. In addition, uncertainties as to the economic conditions associated with grain and energy resource export markets resulted in the adoption by many businessmen of a "wait and see" attitude which further delayed investments in virtually all sectors of Alberta's economy." ¹

Reflecting this cautious attitude in the construction industry during 1970, the industry's activity index dropped to an average point level of 99.8, down 11 per cent from 1969's performance. Translated into constant dollar values, construction activity in Alberta dropped from \$1,302.7 million in 1969 to \$1,260.0 million in 1970, a decline of 3.3 per cent. Compared to 1968, construction expenditures for 1970 increased by over 8.4 per cent in constant dollars and 17.7 per cent in actual value. A mid year revision of construction expenditures reveals a 7.4% increase. This estimate is almost 6% above an earlier forecast. Recent economic maneuvers by the United States are not expected to seriously affect investment plans for the latter part of the year.

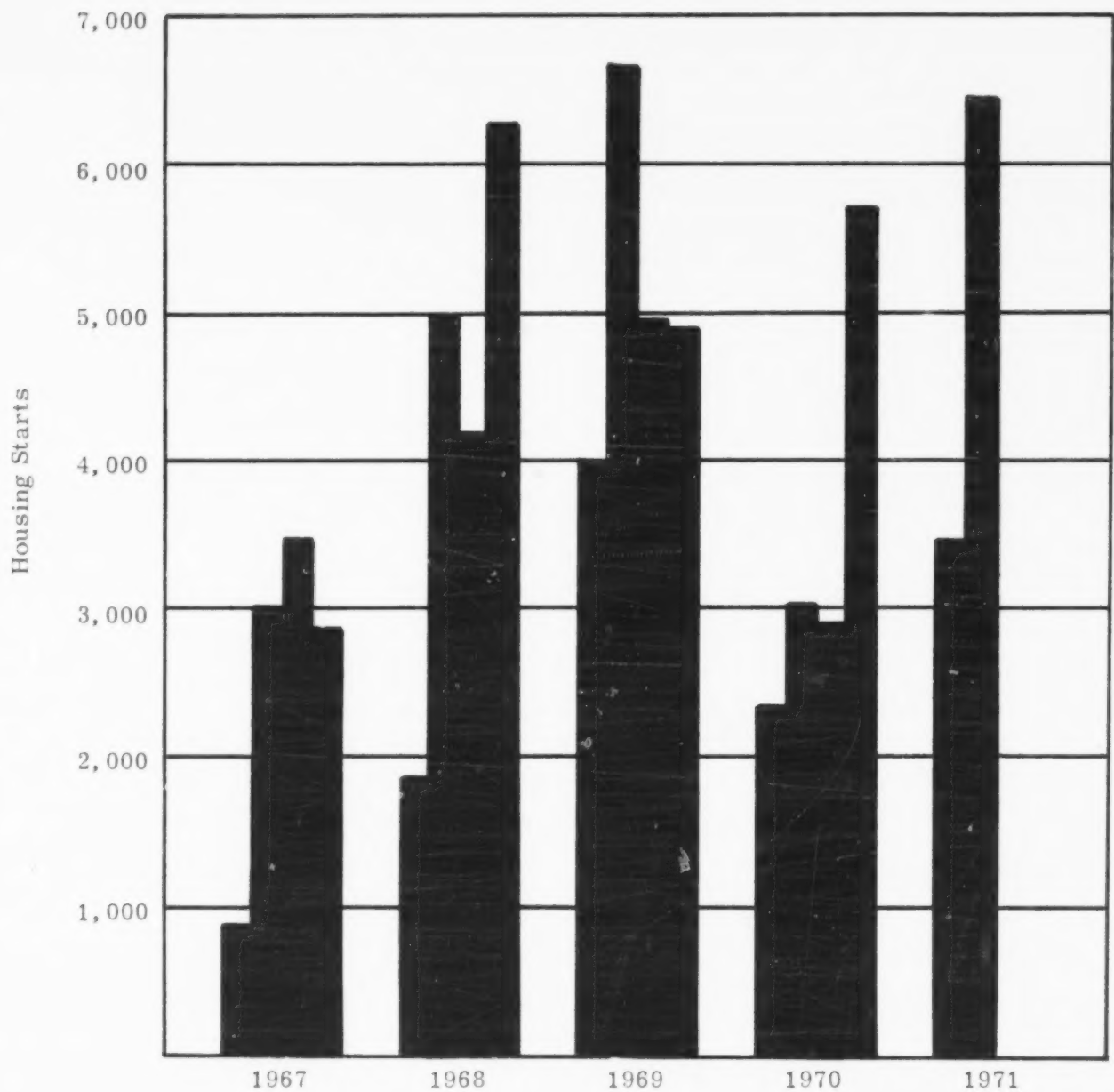
Construction Expenditures for Alberta 1968 - 1971 in millions of dollars

Year	Expenditures		Expenditures	
	Current Dollars	% Change from Previous Year	Constant 1961 Dollars	% Change from Previous Year
1968 - actual	1,442.9	+ 7.1 *	1,162.3	+ 3.8
1969 - actual	1,607.4	+11.4	1,302.7	+12.1
1970 - preliminary	1,697.8	+ 5.6	1,260.0	- 3.3
1971 - intensions	1,725.5	+ 1.6	-	-
1971 - revised	1,822.6	+ 7.4		

* "Private and Public Investment in Canada Outlook 1971", and Mid-Year Review", Statistics Canada.

¹ "Executive Report - 1971"

HOUSING STARTS - PROVINCE OF ALBERTA



For 1971, prospects are for improvement, with the major impetus coming from increased housing activity. To the end of the first half of 1971 urban housing starts are over 82 per cent above the comparable period of 1970. Building permits for the same period record a gain of over \$70 million, an increase of 39 per cent over 1970.

The factors which adversely affected Alberta's construction industry in early 1970 appear more favorable in 1971. Federal government pressure for lower interest rates and increasing availability of funds to mortgage lenders suggests that housing starts will increase to a level more closely associated with actual demand. Central Mortgage and Housing Corporation estimates that 1,000,000 new dwelling units will have to be built in the next five years in Canada to satisfy anticipated demands. The Corporation also feels that new housing demand in Canada will reach 256,000 units per year in the latter half of this decade. With a more stable financial market bringing the costs of mortgages within the grasp of those demanding housing, it is reasonable to assume that Albertans will seek between 19,000 and 22,000 new dwelling starts per year for the next ten years. Projections for 1971 point to a record level of housing starts, well over 20,000 units.

Other sectors of the construction industry should be up in 1971, as well. But because of the lead time required in planning projects, the economic impact will not likely be felt until the latter months of 1971 or be carried into 1972.

Value of gas and oil facility construction in 1969 was estimated to be \$477 million, or 29.7 per cent of total value of construction in Alberta. Intentions for 1970 have shown an equal share of construction value invested into gas and oil facilities where it was estimated that \$525 million out of a total value of \$1,698 million would be invested in new and repair construction. For 1971 and 1972, it is expected that construction in this category will be maintained at this high level as more than 20 new gas plants or pumping stations are on the drawing boards. Mid-year industry estimates set investment into gas plants during 1971 to total slightly over \$200.0 million. This compares with 1970's investment of \$54.5 million. In 1972 expectations are for an additional \$150.0 - 200.0 million, positive when compared to 1970's performance. Original estimates were for an investment of nearly \$280 million in 1971 and \$100 million in 1972. However, these estimates were revised because of changes in gas plant construction plans for the rest of 1971 and 1972.

With the exception of 1969, the period under review has indicated a trend of increasing pipeline construction. Indeed, in the current year tendered contracts together with firm plans are at a level approximately 10 per cent higher than last year in terms of inch-diameter miles of pipeline, with anticipations for further construction this year. Owing to the anticipated increase in the volume of petroleum exported, it is expected that this trend will continue in the foreseeable future, enhanced by the possibility of an accelerated growth rate.

Alberta Pipeline Construction

<u>Year</u>	<u>Inch-diameter Miles</u>	<u>Index</u>
1968	14,827	100
1969	7,751	52
1970	18,344	124
1971*	21,500	145

*Estimated on the basis of work tendered and firmly committed, 19,582 inch-diameter miles, plus a further 10 per cent for the balance of the year.

Source: Tables compiled from contracts listed in Oilweek, various.

The increase in pipe diameter and in capacity also possesses important implications for the manufacturing sector of the Alberta economy. The anticipated growth in tonnage per mile is expected to be greater than the increase in inch-diameter miles constructed, owing to the trend toward thicker walled pipes. Oilweek, for example, anticipates an increase in pipe manufacturing of approximately 25 per cent over 1970's level. This compares to an anticipated increase in pipeline construction of approximately 20 per cent. A start on construction of the Canadian Arctic and Alaska-Alberta pipelines, if confirmed, will not begin until at least 1973. However, the impact of preparations should be felt later this year and into 1972. Pipe manufacturers as well as transportation and other service industries will be directly affected. At the same time, these industries will be anxiously awaiting the National Energy Board's decision on natural gas export proposals presently before it.

In a survey conducted by the Economic Council of Canada the oil and gas transmission industry indicated a relatively high level of capital expenditures in the immediate future in Canada. This optimism stems from anticipated increased export shipments.

Canada
Oil and Gas Transmission Investment Expectations
 1970 = 100

	<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>
Construction	126.0	100.0	223.4	175.8
Machinery & Equipment	58.3	100.0	132.8	103.2
Total	117.3	100.0	161.2	126.4

Source: E.C.C. Medium-Term Capital Investment Survey 1970,
 page 26.

It is noteworthy, that in both the development, production and transmission industries, the majority of companies indicated that they were operating at capacity. This indicates a rather immediate stimulus to massive development. Yet, this factor does not appear to have been fully integrated into their expectations.

Over the longer run, the development of an all Canadian pipeline serving the Arctic will have tremendous implications for the Alberta economy. However, the project currently remains too speculative to warrant inclusion in the investment expectations of the industry.

APPENDIX

Methodology

The "Activity Index" as used in this report is designed to provide a basis for monitoring economic activity in the Province of Alberta. Indicators for each sector were chosen on the basis of their relative importance to that sector and statistical availability. Each industry index was weighted to reflect the relative importance of the sector to the total economy. It is recognized that the "Index" is not inclusive of all possible components and refinements will be introduced as soon as possible.

Presented here to illustrate the calculation of the various activity indices is the approach taken to arrive at the Agricultural Activity Index. Grain shipments and livestock marketed at public stockyards and packing plants were chosen as the components of the Agricultural Activity Index. Each component was converted to a common base, 1968=100. These "transaction" indices were then weighted according to farm cash receipts for the grains and livestock.

For example, there were 56,519,000 bushels of grain (wheat, oats, barley, rye, flaxseed, rapeseed) shipped during the first quarter of 1971. Compared to the 1968 quarterly average of 43,094,000 bushels, the corresponding index of grain shipments is 131.2. The index for livestock marketings is 89.4. It was calculated that the farm cash receipts for grain and livestock contributed 40% and 60% of the total, respectively. The grain component is 52.5 (131.2×0.4) and

the livestock component is 53.6 (89.4×0.6), giving an Agricultural Activity Index of 106.1 for the first quarter of 1971. Similar calculations were performed to obtain the indices of other sectors.

The Total Activity Index for Alberta was calculated by weighting each sector's activity index according to "value added" or "gross domestic product at factor cost". Each of the weighted indices were added to derive the Total Activity Index.

Comments and inquiries are requested. Please direct your correspondence to:

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